

*The Behavioral Scientists
and Research in the Health Field*

a questionnaire survey

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FOREWORD

The extensive research program of Health Information Foundation could not have been developed without the research personnel resources of the behavioral sciences in this country. The application of behavioral science research concepts and techniques in the social and economic aspects of the health field is not new in this country or in Europe, but the momentum with which sociologists, social psychologists, and social anthropologists are being brought into this growing research area is a new phenomenon, and has taken place mainly since 1945.

This momentum shows all the signs of continuing, and the Foundation has very likely played no small part in stimulating it. Accordingly, the Foundation believed that it could provide a service to behavioral scientists and professional health personnel by conducting a survey of the behavioral scientists now actually engaged in research in the health field to indicate their number, sites of research, sources of funds, and working conditions. The pages to follow report this survey.

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IN RECENT YEARS the behavioral* scientists have been encouraged to engage in research on problems in medicine and in the provision of medical care. This has brought them into close contact with research specialists in medicine and public health and with the whole range of practitioners—physicians, institutional and public health nurses, public health officers, hospital administrators, health educators and others. Research has taken two directions—research in the distribution of disease and population characteristics, and research in the provision and receipt of care, including the social-psychological aspects. Both require collaborative research of a very integrated nature in terms of defining research problems, formulating designs, executing projects and transmitting the results to practitioners in the health field.

In view of the increasing interest in research of this type, it seemed advisable to survey behavioral scientists now conducting research in the health field. The 1956 edition of *An Inventory of Social and Economic Research in Health*, published by Health Information Foundation, lists almost 500 research projects as completed or in progress during that year. They vary considerably, of course, in scope and quality. Many are simple fact-finding studies for the understanding of day-to-day problems in the health field; others yield basic knowledge for planning and policy formulation.

Through research inventories and personal contacts and knowledge, 216 behavioral scientists were identified as being

* For the purpose of this paper, behavioral scientists include sociologists, anthropologists and social psychologists. The term "social scientist" is not used because it is generic and includes the scientists already mentioned plus economists, political scientists and historians.

engaged in research in the health field full-time or part-time.* A detailed questionnaire was mailed to each, requesting answers to questions regarding academic training and professional experience, length of time in research on health problems, occasion for entering the health field, advantages and disadvantages to behavioral scientists of working in the health field, nature of working relationships with professional health personnel, and other matters. Completed questionnaires were received from 193 persons, or a response rate of 89 per cent—an unusually good response for a mailed questionnaire.

1. Academic background and length of time in the health field.

The level of training represented by the 193 respondents is considered very high. The highest degrees held are distributed as follows:

Ph.D. —	82%
M.A. —	15
B.A./B.S. —	3
	100%

These degrees were earned from 1912 to 1956, with a few expecting Ph.D. degrees in 1957. The proportions who received degrees since selected dates are as follows:

Since 1930 —	95%
Since 1940 —	79%
Since 1945 —	71%
Since 1950 —	58%

In other words, almost 60 per cent of the respondents had received their degrees during the past six years—an indication that this is a young field of research. Moreover, 53 per cent of the researchers had been in the health field two years or less, and only 25 per cent had been in this field seven years or more.

At the time of the survey, 63 per cent were working full-time and 37 per cent part-time on research. This suggests a considerable degree of application of the available working time.

* A recently published and somewhat similar survey overlaps this report to a small extent (Robert Straus, "The Nature and Status of Medical Sociology," "American Sociological Review" 22:200-204, April 1957). Our survey was concerned with a broader range of questions and a narrower focus of activity, i.e., research. The Straus survey included teaching and administrative duties as well.

The 193 respondents earned their degrees from 52 universities and colleges, distributed as follows:

Columbia	— 10%	} — 41%
Chicago	— 10	
Harvard	— 10	
Yale	— 6	
Cornell	— 5	
Wisconsin	— 5	
Michigan State	— 4	
All others	— 50	
	100%	

It is apparent that five universities trained 41 per cent of the behavioral scientists surveyed. All five universities have medical schools, and three of them also have schools of public health. Four of the universities are located in the East.

The major fields of study were as follows:

Sociology	79%
Psychology	9
Anthropology	9
Other	3
	100%

Minor fields of study reported were:

Psychology	25%
Anthropology	15
Economics	14
Sociology	11
Statistics	5
Other	30
	100%

Twenty-eight per cent reported that a research career in the health field was their goal during graduate training. Surprisingly, there was no indication that these 28 per cent were concentrated among the graduates of the last decade; they were scattered evenly since 1930.

2. Channels of opportunities and sites of research.

Half the respondents entered research positions in the health field through intermediaries such as personal friends and professors, or through contacts with research agencies, government

bureaus, foundations or health agencies. Twenty-seven per cent were approached directly by interested employers, and only 14 per cent of the researchers applied directly. It was not possible to determine how the remaining 9 per cent obtained their positions.

At the time of the survey the behavioral scientists were working in the following types of agencies:

Agency	Per cent
University or College	67%
Federal Government (U.S.P.H.S., N.I.M.H., V.A., U.S.D.A.)	7
Research Agencies (e.g. Bureaus of Social Research in Universities)	7
State and Local Government	7
Foundations	4
Hospitals, Clinics, etc.	3
Voluntary Health and Welfare Agencies	2
Other	3
	<hr/> 100%

Although the bulk of the research is college- and university-based, over 30 per cent of the behavioral scientists surveyed are working in other types of institutions. The 67 per cent who are conducting research in a university or college are scattered through various schools and departments as follows:

Sociology and Anthropology	49%
Medical Schools—Depts. of Preventive Medicine, Schools of Public Health	20
Psychiatry and Psychology	9
Schools of Nursing	3
Other	19
	<hr/> 100%

Within universities and colleges almost half the behavioral scientists are based in departments of sociology and anthropology, indicating direct administrative ties with their parent fields. Dual appointments, although extremely desirable, are very rare.

3. Distribution of research projects, sources of funds and size of budgets.

Among the 262 projects listed by 193 behavioral scientists, the duration of the projects ranged from one to twelve years, with an average of roughly two and one-half to three years. On

being queried as to opportunities for planning long-term projects, over 70 per cent indicated that they had such opportunities. By their own definition a long-term project would be two years or more.

There were 313 sources of funds listed, in the following order of magnitude (some projects are financed by more than one source):

Foundations—Solely or Partially	45%
Federal Government	32
Universities and Colleges	16
State and Local Government	15
Voluntary Health and Welfare Associations	8
Private Business	2
Private Individuals, Research Groups, Hospitals	3
	<hr/> 121%

In this developing field, foundations are the chief source of research funds, followed by the federal government. Together they account for 77 per cent of the sources (not 77 per cent of the funds—these sources probably contribute a higher proportion of the total funds).

Research budgets ranged from \$100 to \$600,000, and were distributed as follows:

Mean	— \$55,649
Median	— \$25,357
68%	— Under \$50,000
32%	— Over \$50,000
15%	— Under \$ 5,000

There were two projects with budgets of \$600,000, from seven to twelve years' duration.

4. Attitudes toward their work.

Virtually 50 per cent of the behavioral scientists now engaged in research in the health field regard that field as their main area of concern. Another 46 per cent regard it as a minor area of concern. Also, 77 per cent anticipated conducting research in the health field as much or more in the future than in the past, and only 16 per cent expected to change to something different.

When queried as to how their work in the health field had

affected their status as behavioral scientists, they answered as follows:

- 68% — felt that their status had been favorably affected
- 22% — no change
- 6% — unfavorably
- 4% — undetermined

Those who felt that their professional status had been affected favorably listed the following *advantages* offered by the field:*

- 62% — the opportunity to apply, test and develop behavioral science knowledge, theory, methodology and hypotheses
- 39% — the opportunity to deal with problems of vital importance to human welfare
- 24% — desirable working conditions and professional opportunities such as employment security, financial rewards and so on

Other advantages listed in diminishing percentages were: opportunity for interdisciplinary activity (18%); availability of research funds (15%); and opportunities to gain professional recognition, prestige and in turn higher status both for the individual and the behavioral sciences (13%).

The *disadvantages* of working in the health field were categorized as follows:

- 36% — lack of recognition of behavioral science as a legitimate scientific discipline in the health field and differences in status between behavioral scientists and medical personnel
- 29% — isolation of the behavioral scientist from his parent discipline and danger of becoming a "quasi" expert
- 19% — ignorance or misconception of the behavioral scientist's role in and contributing to the health field
- 13% — lack of medical knowledge or understanding of the organization and structure of the health field by behavioral scientists

In diminishing percentages other disadvantages were expressed: communication barriers due to differences in language, terminology and frames of reference (12%); organizational structure not conducive to research and limitations of time,

* Percentages add up to more than 100 because some respondents gave more than one answer.

methods and data (11%); unrealistic expectation for immediate, tangible results (9%); insecurity of employment (6%); difficulties in gaining cooperation from medical personnel (5%); inadequacy of funds for research (4%); salaries too low (4%).

The behavioral scientists were queried as to how they felt about the "uniqueness" of the research problems encountered in the health field compared with problem areas such as criminology, education and industry. Fifty-nine per cent felt that problems in the health field did not differ significantly from those of any other applied field, but a large minority (38%) felt otherwise. The most frequently mentioned "unique" problem in the health field was what one behavioral scientist termed the "monolithic quality of the medical profession." The medical profession was apparently regarded as an imposing structure to work through.

Would there be any value to behavioral scientists entering the health field if they took special training in related health subjects like epidemiology, biology, pathology and hospital administration? Forty-eight per cent felt that such training would be desirable, and forty-four per cent did not concur, although many of the latter conceded that the training would be helpful but not absolutely necessary.

When asked what would be their first, second and third choices in working sites, the respondents replied as follows:

University or College	69%
Foundation	15
Federal Government	8
Voluntary Health & Welfare Associations	4
Hospital, Clinic, etc.	3
Research Group	2
State Government	1
Local Government	1
Business or Industry	1
Other	2
No Answer	4
	110%*

If they had no opportunity to conduct research in a university setting, the respondents indicated their second-best choice

* Percentages add up to more than 100 because some respondents gave more than one answer.

would be a foundation (36 per cent), and their third-best choice would be the federal government (23 per cent).

5. Attitudes toward professional health personnel.

The behavioral scientists were queried as to the extent of their experience with various types of personnel in the health field (physicians, nurses, health educators, etc.); the degree of cooperation perceived; and the degree of understanding the health personnel had of behavioral science, as felt by the researchers themselves.

The respondents were asked to rate their experience with each type of professional health personnel from "considerable," "moderate," or "little, if any." The following is a comparison of the ratings of their "considerable" extent of experience with the "considerable" amount of cooperation behavioral scientists might expect to receive from these groups:

Health professionals	Considerable extent of experience	Considerable amount of cooperation
Physicians	57%	32%
Nurses	34	47
Administrators	31	38
Public Health Personnel	28	54
Health Educators	22	40

It is apparent that although behavioral scientists work to a greater extent with physicians than with any other group, physicians were rated as one of the least cooperative groups. On the other hand, public health personnel were regarded as the most cooperative, although there was relatively little experience with them. Nurses were rated high in both extent of experience and amount of cooperation.

When the ratings of "considerable" and "moderate" are combined, the same rank order is found regarding "extent of work

experience"; but physicians, not public health personnel, lead in "amount of cooperation."

Health professional	"Considerable" and "Moderate" Ratings Combined	
	Extent of work experience	Amount of cooperation
Physicians	88%	83%
Nurses	66	75
Administrators	65	70
Public Health Personnel	57	68
Health Educators	45	61

The respondents feel that only a small minority of the professional health personnel understand the value of behavioral science in the health field. The replies suggest that public health personnel understand the value of behavioral science better than any other groups. In view of the fact that physicians and nurses were seldom reported to understand the role of behavioral scientists, it is interesting to note the degree to which they cooperated with behavioral scientists, as shown below. In fact, all types of health personnel were cooperative to a much greater extent than they reportedly understood the value of behavioral science.

Health Professionals	Considerable amount of cooperation
Public Health Personnel	54%
Nurses	47
Health Educators	40
Administrators	38
Physicians	32

The degree to which health personnel understood the role of behavioral scientists:

Health Professionals	Understood role to a considerable extent
Public Health Personnel	22%
Health Educators	21
Administrators	14
Physicians	9
Nurses	8

Nevertheless, the apparent discrepancy is tempered by com-

binning "considerable" and "moderate," which would then seem to provide a strong enough base for an effective working relationship:

Health Professionals	Understand role, "considerable" and "moderate" combined
Public Health Personnel	65%
Administrators	63
Health Educators	56
Nurses	54
Physicians	49

6. Observations

This mailed questionnaire survey of 216 behavioral scientists engaged in research in the health field has revealed the following:

1. There is a high level of training—82 per cent with Ph.D.s.
2. There is a high concentration of graduates from five universities, four of them in the East.
3. Overwhelmingly the major field of study is sociology.
4. The research projects are largely based in universities, and of those in universities one-half are based in departments of sociology and anthropology.
5. There is general satisfaction with the research positions, and the future is regarded favorably.
6. The working relationships—as defined by the behavioral scientists—are good enough for effective work.

At this point the authors wish to stray from the data and make observations based on inferences and experience. It would seem premature at this time in the development of working relationships between behavioral scientists and research personnel and practitioners in the health field to try to establish standards of eligibility, patterns of conduct and other criteria. Behavioral scientists and health personnel will have to continue to feel their way into research problems and determine how best to work together. Rather obvious suggestions would be the need for behavioral scientists to work on status levels similar to those of health research personnel—levels that provide, of course, equal research experience, age and extent of training. To the uninitiated the health field is an awesome structure, and handicaps of low status and little authority and responsibility in research situations are no help.

When the authors say that behavioral scientists must continue to feel their way into the field, they recognize that there is and will continue to be a high degree of idiosyncrasy in the relationship. In any unstructured relationship the individual entering it is thrown very much on himself to make himself respected, useful and accepted. For behavioral scientists it makes no sense to "blame" physicians for being uncooperative or nurses for not "understanding the role of behavioral science" and so on. Such reactions—real or imagined—are part of the objective situations with which behavioral scientists have to work, and should be evaluated as such. Imaginative strategy and tactics of a very high order are called for. In fact, specific training may be less necessary than emphasis on general theoretical considerations, skills in analyzing the components of problems and the groups involved, general training in technique of research and consultation, and preparation in adapting spoken and written English to audiences other than behavioral scientists.

Along the same vein, this paper can well end with a quotation from one of the questionnaires indicating further the individual responsibility each behavioral scientist assumes as he enters into as yet relatively uncharted research areas and relationships:

"Every profession is conditioned in its thinking and acting by its own body of knowledge, conceptualization, goals, values, status position, sense of importance, etc. The older, more 'important' and secure the profession, the less it is likely to feel the need of help or be interested in other disciplines. The social scientist must generally be able to demonstrate that he can be helpful, at a specific point of need, and that he can talk and write understandably before he is able to win acceptance in any truly interdisciplinary projects. Many social scientists have not yet had enough experience, particularly in handling the psychological factors involved, to win the profound interest of the more difficult professions, such as clinicians." (26)

ADDENDUM

At the end of the questionnaire the respondents were asked to make any general observations on the health field and behavioral science which may not have been covered in the questionnaire. The remarks of a few of the respondents are selected because of their thought-provoking nature:

1) "Social scientists are currently invading this field because of readiness of funds. If they make practical promises which they fail to underwrite, these funds are soon to dry up. They will fail to underwrite their promises in direct proportion to the basic and applied research efforts. The project I worked on arose because somebody sold (the agency) on the idea that a study might help them to lower the rate of 'returnism.' So far as I know the study did not accomplish this very practical end. If people pay out money for something, they are entitled to a fair return. If the money is expended on 'basic research,' then nobody is disappointed. The social scientist becomes a legitimate character in a society that is just curious about itself—and not in a morbid way, either. I look forward to the day when people will not ask 'of what use' is the research but will take it for granted." (248)

2) "I speak mainly as a sociologist of anthropological bent. House organ research to make points for any organization or profession is a curse to social science. Fundamental understanding, including potential criticism, is better long-run public relations. Social scientists should be nether exposé artists nor public relations stooges. Sound work done systematically but with independence and objectivity is the ticket. Social scientists destroy their usefulness if they become little M.D.'s, psychiatrists, or management consultants. They must understand these roles, but not play them. On the whole, I would not 'professionalize' social science in the health field; don't start people in it too awfully soon; avoid 'prerequisites,' keep strong the point that it is *social* science we are doing, with health and health institutions as our data; don't make it a closed 'guild' isolated from other social science." (232)

3) "Our job is to translate substantive problems in the health field, into terms of more general human behavior variables. We get bogged down in the fascination of a substantive area and

forget that we are *not* hospital administrators, clinicians, physicians, etc. and are not meant to be so. We are in a *service* capacity and can be of service only by analyzing an immediate problem in the terms of our competence—human behavior." (228)

4) "I do not like to think of social scientists in the public health field as 'different' from other social scientists. I do not believe they are. A social scientist working in the housing field, or the area of food habits and diets, or consumer finances, or physical well being and morale of Army personnel all have the same kinds of problems to deal with and these areas are closely allied to health." (211)

5) "The social scientist while absorbing material from other disciplines must be careful to:

- (a) Maintain his professional identity.
- (b) Refrain from giving premature results and 'findings' in order to justify his presence.
- (c) Maintain humility and a tough hide." (208)

6) "I believe it is important to differentiate between social scientists who are in the health field only incidentally—that is, because it provides them with concrete illustrations of some larger whole which they are studying—and social scientists who are committed to working in the health field *per se*. These two groups are likely to have differing career patterns and differing opinions on such things as medical-social science interaction, the definition of health problems, the kinds of training needed, and other matters which you have asked questions about in this booklet. In fact, here is a good opportunity for some research in the sociology of work among social scientists themselves." (171)

7) "I think you assume that work in this field need be applied, and that one must see himself as married to 'health.' It ain't necessarily so. I see myself as working on fairly basic sociological problems, and supported in that work because my superiors agree that this makes more sense than doing 'applied' research. Were that not so I would quit in a moment. This undoubtedly differs from many jobs for social scientists in the health field, but I am most certainly not a minority of one in my views about the field or my job situation, or, for that matter, about where social scientists can make the most useful contributions." (105)

8) "As compared to most decision makers and influentials in the health field, social scientists are relatively unbiased, uncommitted, and disinterested spectators. Their relative objectivity may increase the probability of intelligent action in that area." (58)

9) "The problem of care of the ill is fundamentally a social problem, only technically a medical problem. As we move from the area of care for acute episodes into a period where major concern will be on the positive maintenance of health, we will increasingly become involved in problems of social structure, social action, priorities of values, popular attitudes and mass education. These are areas of special competence of the social scientist. As a profession we must assume some responsibility for the solution of these problems. This responsibility should not be narrowly conceived in terms of 'social engineering' but broadly approached with the goal of substituting rational, consciously deliberated structures and functions for the unconsciously formulated practices derived from tradition and maintained by custom. Accepted practices may be 'good' or 'bad,' but only by consciously thinking them through and subjecting them to critical research can the community assume control of our social environment and direct it in the course best calculated to its stated values of humane care for all ill, and maintenance of optimum health for the entire population." (39)

10) "Many social scientists tend to take our poor stock of 'theories' straight into the health area and 'apply' them without any modification and without apparently realizing that modifications in existing programs are attempted as the result of such theorizing. The excessive utilization of psychological hypotheses in patient-medical personnel relationships is an example of this. The consequences of our recommendations are very often grave and social scientists seem to fail to consider their responsibilities occasionally. On the whole the meeting of the 2 disciplines seems most fruitful, though, especially when one considers the education that each gets in the process." (38)

11) "Social scientists consider that I have identified myself with the interests of various professions rather than with those of social science. Much validity to this point of view. As more social scientists have moved into work in the health field, how-

ever, they have begun to suggest that I have been a bridge across the interdisciplinary barrier, and that I have thus represented their interests. As I have viewed my own role, my own roots are definitely in social science, in the potentialities of which I have great faith. In its application to social practice, however, I have found considerable identification with physicians or nurses, or lawyers, or engineers important if I were to get enough of the real feel of a profession to be able to community with its members." (26)

12) "I had a health field identification before I began to have a social science identification so that I have all the 'ins' of a health professional except, of course, medical practice. Therefore, I am 'marginal' in the truest sense of the word." (3)

About Health Information Foundation —

The Foundation was organized in 1950 by a group of leaders in the drug, pharmaceutical, chemical, and allied industries who believe that the health field can continue its great progress only if citizens assume responsibility for its freedom.

These progressive representatives of the more than 200 companies supporting the Foundation decided they could serve the public interest by:

—documenting through research the accomplishments of the present system of medical care;

—defining areas in the health field in need of improvement and investigating possible solutions to current problems;

—bringing, through all media of communication, research findings, needed facts and new knowledge concerning health problems to organizations active in the health field and to the public.

Today the Foundation is studying many of the most vital problems related to health in the United States, among them the ways by which voluntary health insurance can be expanded and improved, the special problems of Americans over 65, and the opinions and attitudes of the general public toward health services.

The Foundation's President is George Bugbee; its research director is Odin W. Anderson, Ph.D., co-author of this first volume of a new series of Foundation research reports.